

Dortmunder

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **22**
- SRM **4.6**
- Style **Dortmunder Export**

Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **34.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **16.3 liter(s)**
- Total mash volume **22.8 liter(s)**

Steps

- Temp **55 C**, Time **15 min**
- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **20 min**

Mash step by step

- Heat up **16.3 liter(s)** of strike water to **62C**
- Add grains
- Keep mash **15 min** at **55C**
- Keep mash **20 min** at **64C**
- Keep mash **20 min** at **72C**
- Sparge using **24.4 liter(s)** of **76C** water or to achieve **34.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 5.5 kg (84.6%) | 80 % | 4 |
| Grain | Monachijski | 0.5 kg (7.7%) | 80 % | 16 |
| Grain | Strzegom Monachijski typ II | 0.5 kg (7.7%) | 79 % | 22 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Magnum | 20 g | 60 min | 13.5 % |
| Boil | Premiant | 20 g | 0 min | 8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|-------|--------|--------|------------------|
| FM31 Bawarska Dolina | Lager | Liquid | 200 ml | Fermentum Mobile |